1. 유저 레벨로 데이터 이관

👥 소유자	Ⓢ 쏘니
☰ 태그	
☰ 다중 선택	

> 💡 순서
>   1. 나의 영문 이름 DB (shm DB)를 올려서 king 이라는 유져를 생성
>   2. orcl DB 쪽의 scott 계정의 모든 테이블들을 shm DB의 king 유져에 전부 이관

1. shm DB에 king 유저 생성

```
create user king
    identified by king;

grant resource, connect to king;
```


2. orcl DB의 scott계정에서 USER LEVEL로 모든 테이블 데이터 export하기

```
[orcl:~]$ exp scott/tiger owner=scott file=scott.dmp
```

((이하생략))

3. shm DB에 데이터 iport하기 전에 기본 테이블 스페이스를 확인하고, 기본 테이블 스페이스에 공간이 있는지 확인

- 기본 테이블 스페이스 확인하기

```
shm SYS > @dbp

PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------  --------------------------
DICT.BASE                           2
DEFAULT_TEMP_TABLESPACE             TEMP
DEFAULT_PERMANENT_TABLESPACE        USERS
DEFAULT_EDITION                     ORA$BASE
Flashback Timestamp TimeZone        GMT
TDE_MASTER_KEY_ID
DST_UPGRADE_STATE                   NONE
DST_PRIMARY_TT_VERSION              11
DST_SECONDARY_TT_VERSION            0
DEFAULT_TBS_TYPE                    SMALLFILE
NLS_LANGUAGE                        AMERICAN


PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------  --------------------------
NLS_TERRITORY                       AMERICA
NLS_CURRENCY                        $
```

```
NLS_ISO_CURRENCY                    AMERICA
NLS_NUMERIC_CHARACTERS              .,
NLS_CHARACTERSET                    KO16MSWIN949
NLS_CALENDAR                        GREGORIAN
NLS_DATE_FORMAT                     DD-MON-RR
NLS_DATE_LANGUAGE                   AMERICAN
NLS_SORT                           BINARY
NLS_TIME_FORMAT                     HH.MI.SSXFF AM
NLS_TIMESTAMP_FORMAT                DD-MON-RR HH.MI.SSXFF AM


PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------- --------------------------
NLS_TIME_TZ_FORMAT                  HH.MI.SSXFF AM TZR
NLS_TIMESTAMP_TZ_FORMAT             DD-MON-RR HH.MI.SSXFF AM
                                    TZR


NLS_DUAL_CURRENCY                   $
NLS_COMP                            BINARY
NLS_LENGTH_SEMANTICS                BYTE
NLS_NCHAR_CONV_EXCP                 FALSE
NLS_NCHAR_CHARACTERSET              AL16UTF16
NLS_RDBMS_VERSION                   11.2.0.1.0
GLOBAL_DB_NAME                      SHM


PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------- --------------------------
EXPORT_VIEWS_VERSION                8
WORKLOAD_CAPTURE_MODE
WORKLOAD_REPLAY_MODE
NO_USERID_VERIFIER_SALT             820EA1118701F6539A50393BB
                                    68B7AD0


DBTIMEZONE                          00:00


36 rows selected.
```



```
SP2-0310: unable to open file "d.sqt"
shm SYS > @dbp

PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------- --------------------------
DICT.BASE                           2
DEFAULT_TEMP_TABLESPACE             TEMP
DEFAULT_PERMANENT_TABLESPACE        USERS
DEFAULT_EDITION                     ORA$BASE
Flashback Timestamp TimeZone        GMT
TDE_MASTER_KEY_ID
DST_UPGRADE_STATE                   NONE
DST_PRIMARY_TT_VERSION              11
DST_SECONDARY_TT_VERSION            0
DEFAULT_TBS_TYPE                    SMALLFILE
NLS_LANGUAGE                        AMERICAN

PROPERTY_NAME                       PROPERTY_VALUE
----------------------------------- --------------------------
NLS_TERRITORY                       AMERICA
```

- 테이블 스페이스의 공간 확인하기

```
shm SYS > @space

Tablespace Total Space (MB) Used Space (MB) Free Space (MB)
---------- --------------- -------------- ---------------
SYSAUX                  510          473.13           36.88
UNDOTBS1                 85           15.31           69.69
TEMP                     29              29              29
USERS                     5            4.06             .94
SYSTEM                  680          675.69            4.31
EXAMPLE                 100           78.75           21.25
```


- USERS 테이블 스페이스의 경로 확인하기

```
shm SYS > @tablespace

TABLESPACE STATUS    FILE_NAME
---------- --------- ---------------------------------------------------
USERS      AVAILABLE /u01/app/oracle/oradata/shm/users01.dbf
UNDOTBS1   AVAILABLE /u01/app/oracle/oradata/shm/undotbs01.dbf
SYSAUX     AVAILABLE /u01/app/oracle/oradata/shm/sysaux01.dbf
SYSTEM     AVAILABLE /u01/app/oracle/oradata/shm/system01.dbf
EXAMPLE    AVAILABLE /u01/app/oracle/oradata/shm/example01.dbf
```


- USERS 테이블 스페이스에 공간 추가하기

```
shm SYS >
alter tablespace users
    add datafile '/u01/app/oracle/oradata/shm/users02.dbf' size 300m;
```

```
shm SYS > alter tablespace users
         add datafile '/u01/app/oracle/oradata/shm/users02.dbf' size 300m;

Tablespace altered.
```

4. shm DB의 king 유저에 데이터 import 하기

```
[shm:~]$ imp system/oracle_4U file=scott.dmp fromuser=scott touser=king
```

```
[shm:~]$ imp system/oracle_4U file=scott.dmp fromuser=scott touser=king

Import: Release 11.2.0.1.0 - Production on Wed Feb 21 17:07:28 2024

Copyright (c) 1982, 2009, Oracle and/or its affiliates.  All rights reserved.


Connected to: Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

Export file created by EXPORT:V11.02.00 via conventional path

Warning: the objects were exported by SCOTT, not by you

import done in US7ASCII character set and AL16UTF16 NCHAR character set
import server uses KO16MSWIN949 character set (possible charset conversion)
. importing SCOTT's objects into KING
IMP-00017: following statement failed with ORACLE error 1031:
 "CREATE DATABASE LINK "LSH_LINK.US.ORACLE.COM" CONNECT TO "SCOTT" IDENTIFIED"
 " BY VALUES '05755BCCFE91EE9B68EACC8DC25D3B67D0' USING '192.168.19.51:1521/o"
 "rcl.us.oracle.com'"
IMP-00003: ORACLE error 1031 encountered
ORA-01031: insufficient privileges
IMP-00017: following statement failed with ORACLE error 1031:
 "CREATE DATABASE LINK "ORCL_LSH_LINK.US.ORACLE.COM" CONNECT TO "SCOTT" IDENT"
 "IFIED BY VALUES '0510D61F2D85740E325EC249D51381890B' USING '192.168.19.50:1"
 "521/orcl.us.oracle.com'"
IMP-00003: ORACLE error 1031 encountered
ORA-01031: insufficient privileges
IMP-00017: following statement failed with ORACLE error 1031:
 "CREATE DATABASE LINK "SHM_LINK.US.ORACLE.COM" CONNECT TO "SCOTT" IDENTIFIED"
 " BY VALUES '0577F75017C7BBF6BDAC09F4049CD9E163' USING '192.168.19.51:1521/s"
 "hm'"
IMP-00003: ORACLE error 1031 encountered
ORA-01031: insufficient privileges
. . importing table                    "DEPT"          4 rows imported
. . importing table                    "DEPT02"        4 rows imported
. . importing table                    "DEPT04"        0 rows imported
. . importing table                    "DEPT100"       4 rows imported
. . importing table                    "EMP"          14 rows imported
. . importing table                    "EMP01"    262145 rows imported
. . importing table                    "EMP03"        14 rows imported
. . importing table                    "EMP07"     32768 rows imported
. . importing table                    "EMP_NEW"      14 rows imported
. . importing table                    "EMP_NEW2"     14 rows imported
. . importing table                    "MOVIES"     3883 rows imported
. . importing table                    "PRODUCTS"     72 rows imported
. . importing table                    "RATINGS"  1000209 rows imported
. . importing table                    "SALES100"  918843 rows imported
. . importing table                    "SALGRADE"      5 rows imported
. . importing table                    "SAMPLE"       20 rows imported
. . importing table                    "TIMES"      1826 rows imported
. . importing table                    "USERS"      6040 rows imported
Import terminated successfully with warnings.
[shm:~]$
```

비교해보기

1. orcl DB의 SCOTT계정에 접속해서 유저 레벨로 통계정보 수집

```
orcl SCOTT >

exec dbms_stats.gather_schema_stats('SCOTT');
```


2. USER_TABLES를 조회해서 테이블 이름과 NUM_ROWS를 조회

```
select table_name, num_rows
    from user_tables;
```


3. shm DB의 king계정으로 접속해서 유저 레벨로 통계 정보를 수집

```
exec dbms_stats.gather_schema_stats('KING');
```


4. USER_TABLES를 조회해서 테이블 이름과 NUM_ROWS를 조회합니다.

```
select table_name, num_rows
    from user_tables;
```

```
shm KING > select table_name, num_rows
              from user_tables;  2

TABLE_NAME                      NUM_ROWS
------------------------------ ----------
USERS                              6040
TIMES                             1826
SAMPLE                              20
SALGRADE                             5
SALES100                        918843
RATINGS                        1000209
PRODUCTS                            72
MOVIES                            3883
EMP_NEW2                            14
EMP_NEW                            14
EMP07                            32768

TABLE_NAME                      NUM_ROWS
------------------------------ ----------
EMP03                              14
EMP01                           262145
EMP                                14
DEPT100                             4
DEPT04                              0
DEPT02                              4
DEPT                                4

18 rows selected.
```

이제 이를 비교하기 위한 방법은 db link를 생성해서 비교하면 된다.

5. PROD DB SYS에서 SCOTT3유저에 create public database link 권한과 drop public database link 권한을 준다.

```
shm SYS > grant create public database link, drop public database link to
```

```
shm SYS > grant create public database link, drop public database link to king;
Grant succeeded.
```


6. scott3 에서 db링크를 생성하는데, orcl DB의 SCOTT의 테이블을 엑세스 할 수 있는 DB링크 생성

```
shm SYS >
create public database link orcl_scott_link2
    connect to scott
    identified by tiger
    using '192.168.19.51:1521/orcl.us.oracle.com';
```

```
shm KING > create public database link orcl_scott_link2
              connect to scott
              identified by tiger
              using '192.168.19.51:1521/orcl.us.oracle.com';

Database link created.
```

- 잘 연결 되었는지 확인하기

```
shm KING > select count(*) from emp@orcl_scott_link2;

  COUNT(*)
---------
       14
```


7. 비교해보기

```
< orcl에 있는데 나한테 없는거 >
select table_name, num_rows
    from user_tables@orcl_scott_link2
minus
select table_name, num_rows
    from user_tables;
```

```
TABLE_NAME                                                       NUM_ROWS
---------------------------------------------------------------- ----------
BONUS                                                                    0
```


⇒ 못 넘어온 1개는 따로 넘겨줘야함

8. 오라클 EXPORT 시 데이터 없는 테이블까지 이관하는 방법
- 오라클 11G 부터는 기본 설정이 데이터 없을 때는 EXPORT 안됨 아래 내용으로 설정 변경 필요

```
ALTER TABLE <empty table name> ALLOCATE EXTENT;

ex ) ALTER TABLE bonus ALLOCATE EXTENT;
```

9. orcl DB의 SCOTT계정의 bonus 테이블을 TABLE LEVEL로 데이터 이관하기

```
[orcl:~]$
exp scott/tiger tables=bonus file=bonus.dmp
```

```
[orcl:~]$ exp scott/tiger tables=bonus file=bonus.dmp

Export: Release 11.2.0.1.0 - Production on Wed Feb 21 17:19:45 2024

Copyright (c) 1982, 2009, Oracle and/or its affiliates.  All rights reserv


Connected to: Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 -
With the Partitioning, Automatic Storage Management, OLAP, Data Mining
and Real Application Testing options
Export done in US7ASCII character set and AL16UTF16 NCHAR character set
server uses AL32UTF8 character set (possible charset conversion)

About to export specified tables via Conventional Path ...
. . exporting table                         BONUS           0 rows exporte
EXP-00091: Exporting questionable statistics.
Export terminated successfully with warnings.
```


10. shm DB의 king 계정에 orcl DB의 SCOTT계정의 bonus 테이블 데이터 이관

```
imp king/king tables=bonus file=bonus.dmp fromuser=scott touser=king
```

11. DBA 권한이 없어서 IMPORT가 안되는 에러 발생

IMP-00013: only a DBA can import a file exported by another DBA

(왜? orcl DB의 SCOTT계정이 dba권한이 있을 때 만들어진 테이블들을 import받으려면 import받으려는 계정도 dba 권한이 있어야함)

```
shm SYS > grant dba to king;

Grant succeeded.
```


12. bonus 테이블을 다시 데이터 import

```
[shm:~]$ imp king/king tables=bonus file=bonus.dmp fromuser=scott touser=k

Import: Release 11.2.0.1.0 - Production on Wed Feb 21 17:36:52 2024

Copyright (c) 1982, 2009, Oracle and/or its affiliates.  All rights reserv


Connected to: Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 -
With the Partitioning, OLAP, Data Mining and Real Application Testing opti

Export file created by EXPORT:V11.02.00 via conventional path

Warning: the objects were exported by SCOTT, not by you

import done in US7ASCII character set and AL16UTF16 NCHAR character set
import server uses KO16MSWIN949 character set (possible charset conversion
. importing SCOTT's objects into KING
```

```
. . importing table                        "BONUS"              0 rows importe
Import terminated successfully without warnings.
```


13. DB LINK를 이용해서 다시 비교해보기

```
shm KING >
select table_name, num_rows
    from user_tables@orcl_scott_link2
minus
select table_name, num_rows
    from user_tables;
```